

1 / 15

FIG. 1A

Example 1

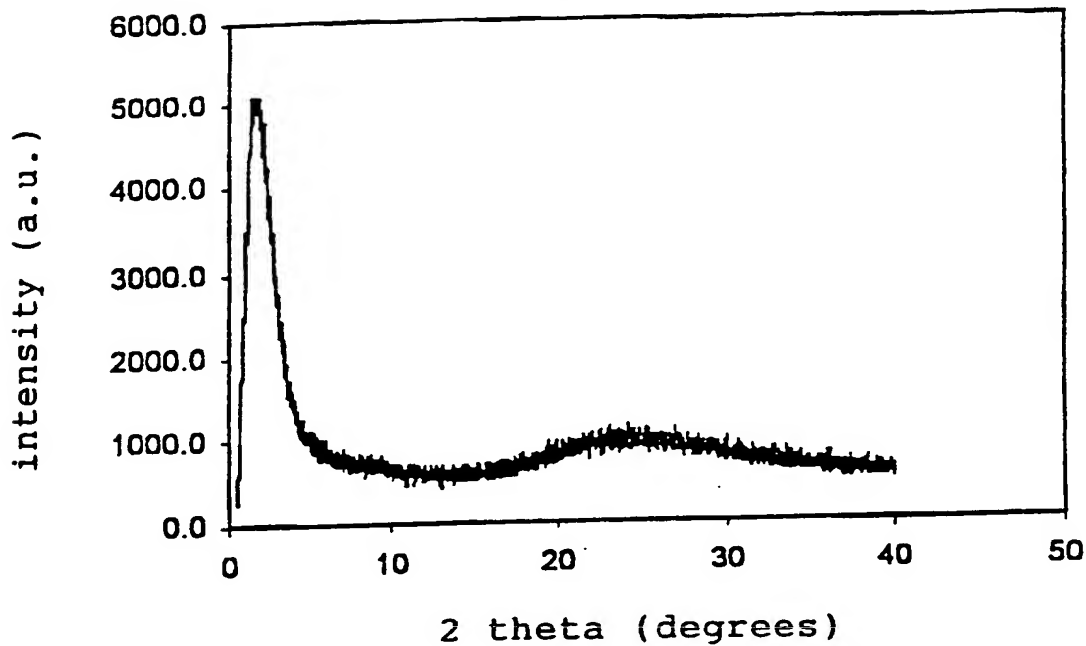
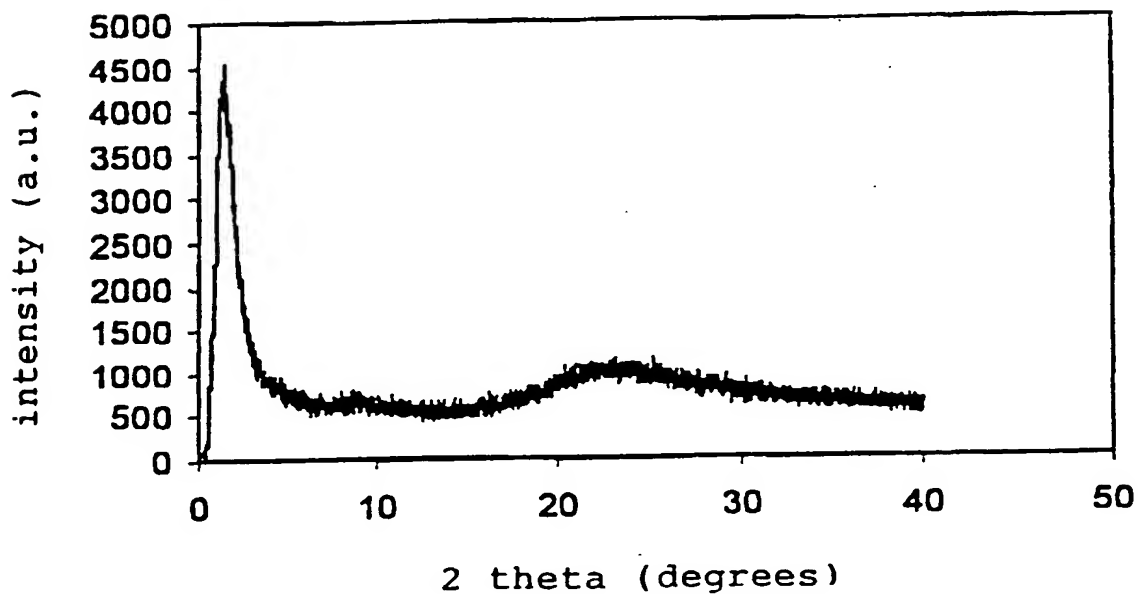


FIG. 2A

Example 2

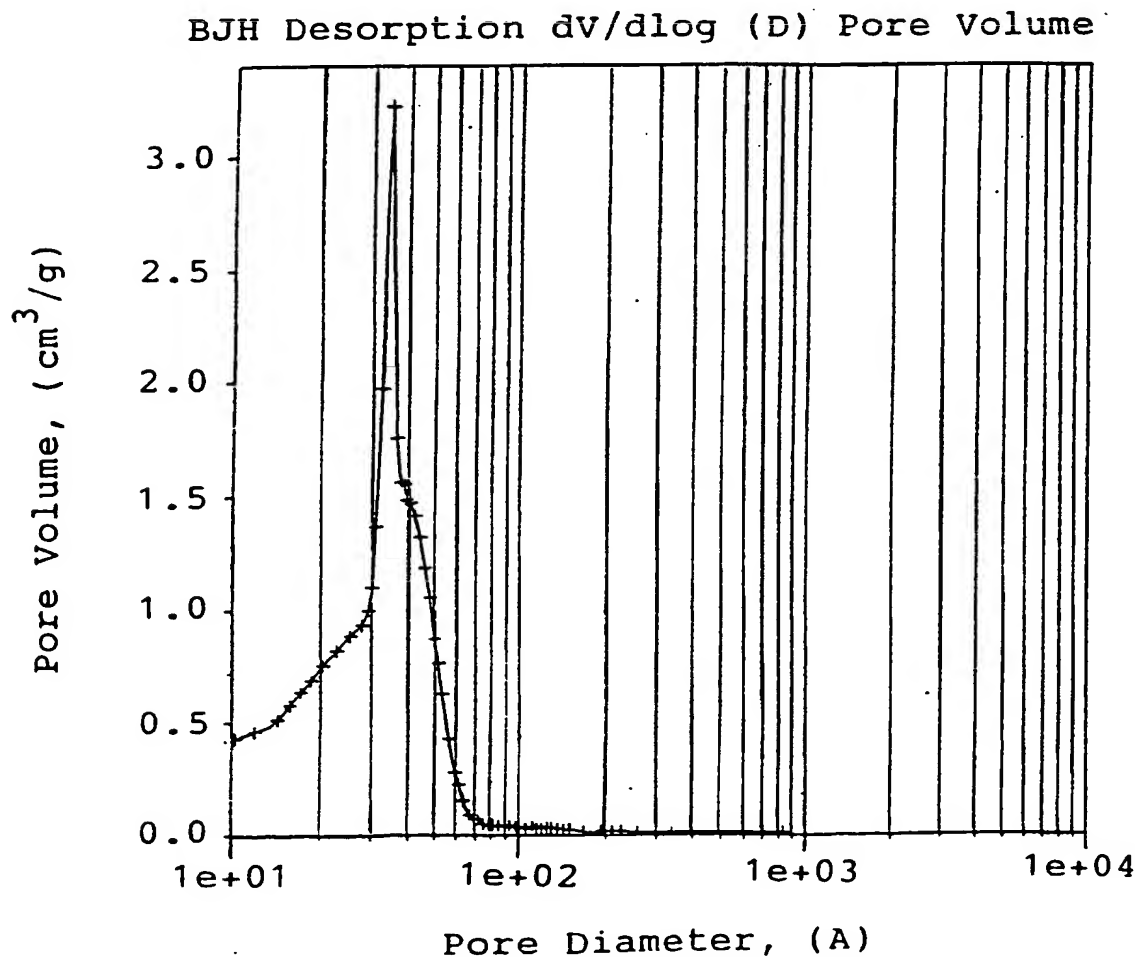


2 / 15

FIG. 1B

Figure 1B: BJH Desorption $dV/d\log D$ curve for the sample prepared according to example 1.

Started: 03/29/99 08:55:09
Completed: 03/30/99 18:09:56
Report Time: 03/31/99 08:37:39
Sample Weight: 0.1270 g
Warm Freespace: 18.5791 cm³
Equil. Interval: 10 secs
Analysis Adsorptive: N2
Analysis Bath: 77.30 K
Thermal Correction: No
Smoothed Pressures: No
Cold Freespace: 57.1148 cm³
Low Pressure Dose: 5.00 cm³ /g STP



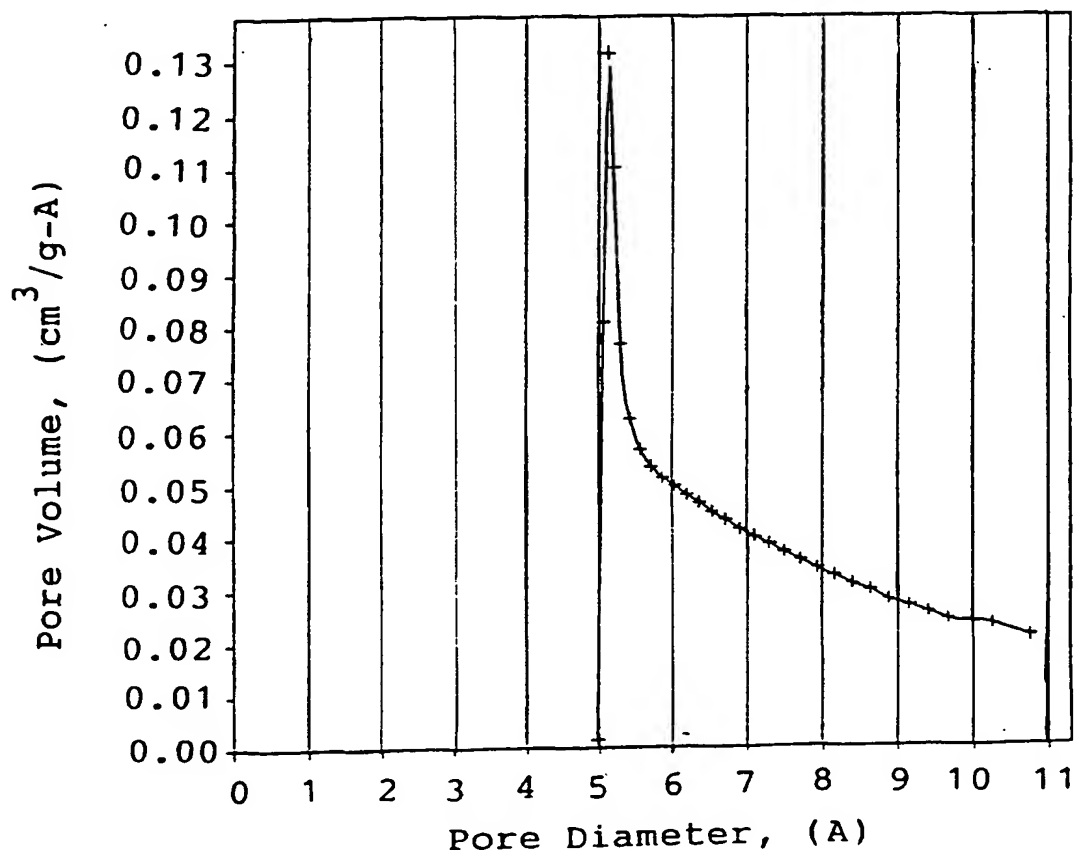
3 / 15

FIG. 1C

Figure 1C: Horvath-Kawazoe differential pore volume plot with slit pore geometry for the sample prepared according to example 1.

Started: 03/29/99 08:55:09
Completed: 03/30/99 18:09:56
Report Time: 07/14/99 09:15:22
Sample Weight: 0.1270 g
Warm Freespace: 18.5791 cm³
Equil. Interval: 10 secs
Analysis Adsorptive: N2
Analysis Bath: 77.30 K
Thermal Correction: No
Smoothed Pressures: No
Cold Freespace: 57.1148 cm³
Low Pressure Dose: 5.00 cm³ /g STP

Horvath-Kawazoe Differential Pore Volume Plot
Slit Pore Geometry (original HK)

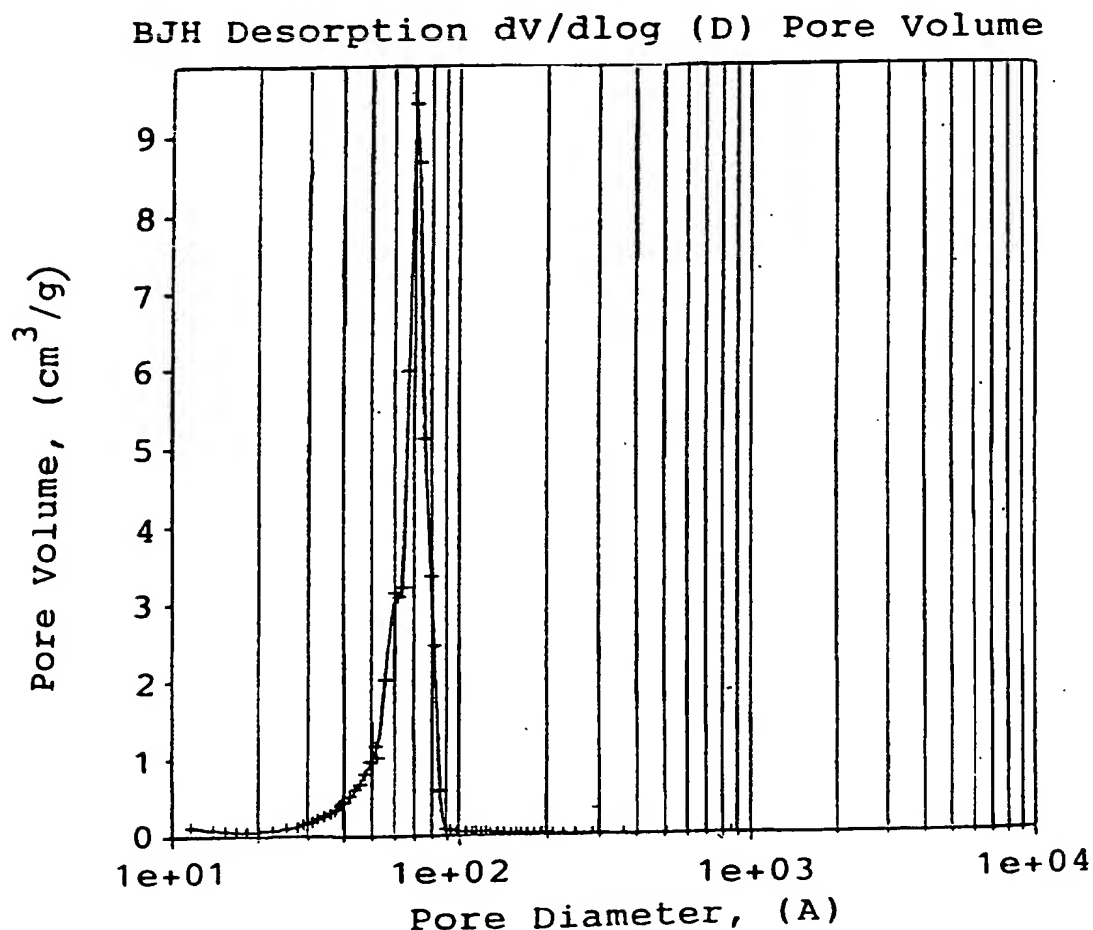


4 / 15

FIG. 2B

Figure 2 B: BJH Desorption $dV/d\log D$ curve for the sample prepared according to example 2.

Started: 03/18/99 11:49:36
Completed: 03/20/99 02:27:11
Report Time: 03/23/99 08:50:51
Sample Weight: 0.3600 g
Warm Freespace: 17.3334 cm³
Equil. Interval: 10 secs
Analysis Adsorptive: N2
Analysis Bath: 77.30 K
Thermal Correction: No
Smoothed Pressures: No
Cold Freespace: 53.0273 cm³
Low Pressure Dose: 5.00 cm³ /g STP



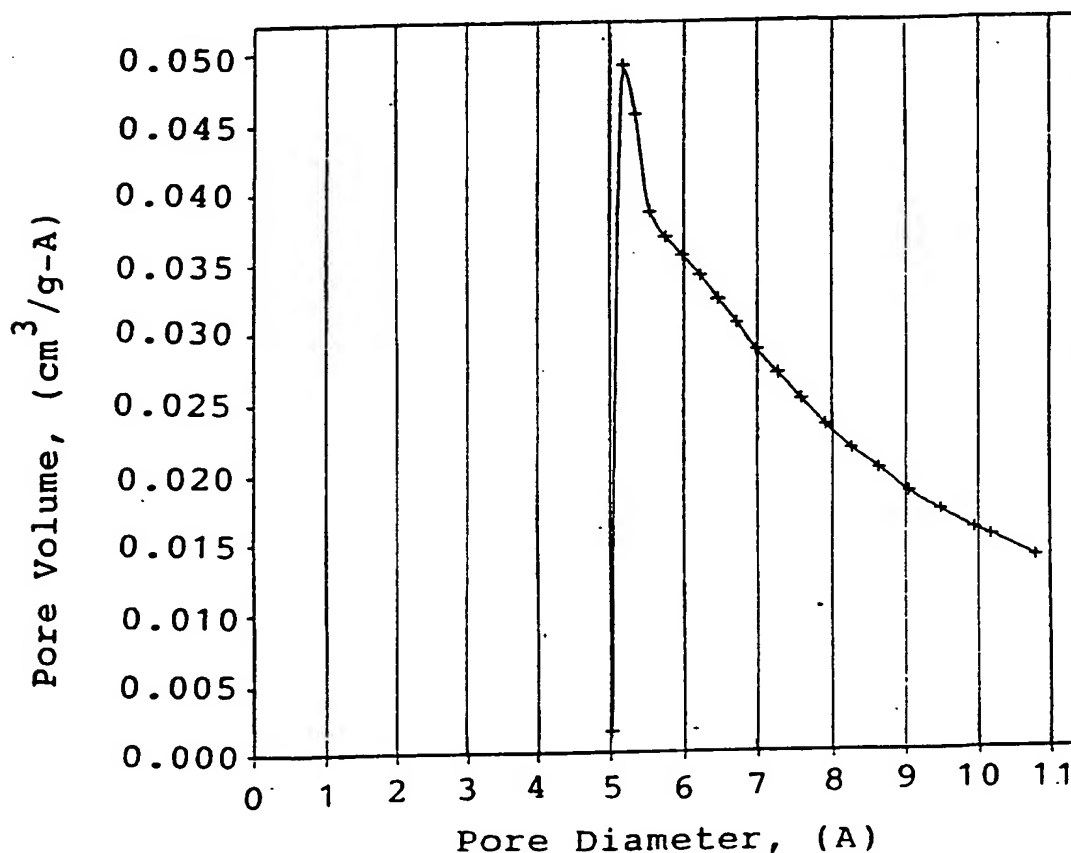
5 / 15

FIG. 2C

Figure 2C: Horvath-Kawazoe differential pore volume plot with slit pore geometry for the sample prepared according to example 2.

Started: 03/18/99 11:49:36
Completed: 03/20/99 02:27:11
Report Time: 07/14/99 09:17:34
Sample Weight: 0.3600 g
Warm Freespace: 17.3334 cm³
Equil. Interval: 10 secs
Analysis Adsorptive: N₂
Analysis Bath: 77.30 K
Thermal Correction: No
Smoothed Pressures: No
Cold Freespace: 53.0273 cm³
Low Pressure Dose: 5.00 cm³ /g STP

Horvath-Kawazoe Differential Pore Volume Plot
Slit Pore Geometry (original HK)



6 / 1 5

FIG. 3A

Example 3

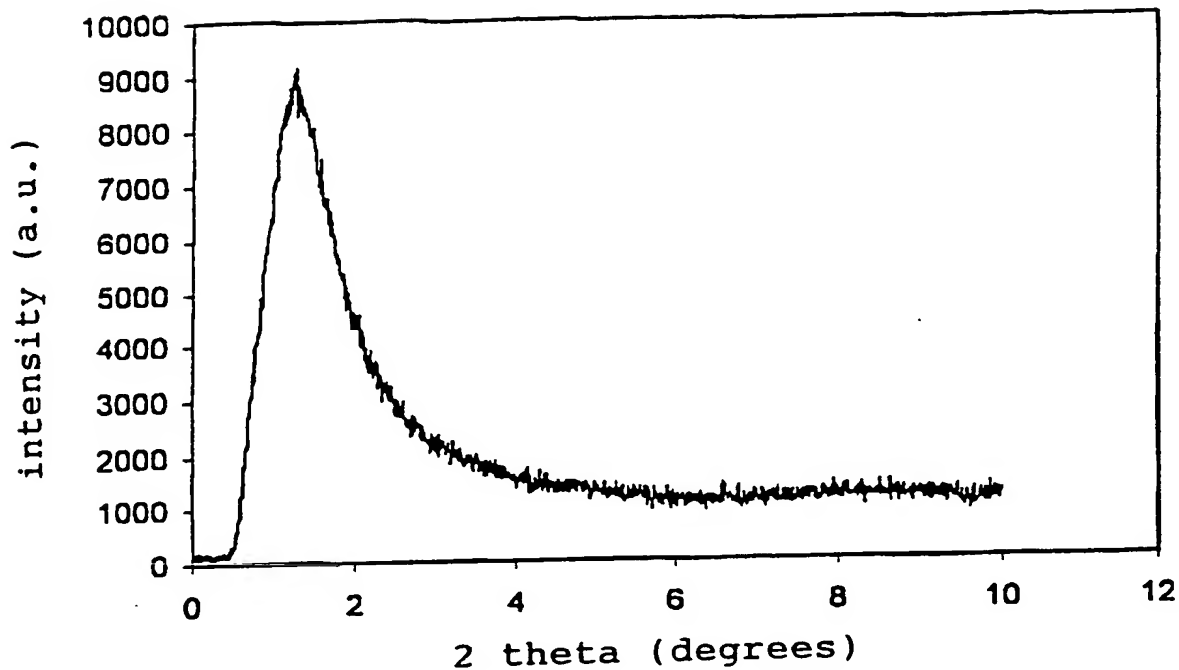
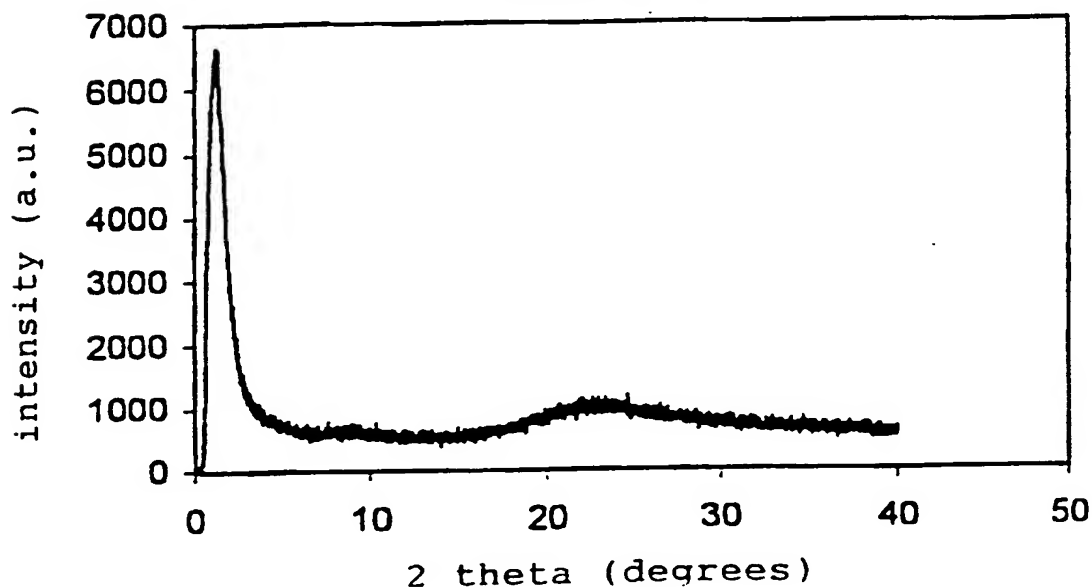


FIG. 4

Example 4



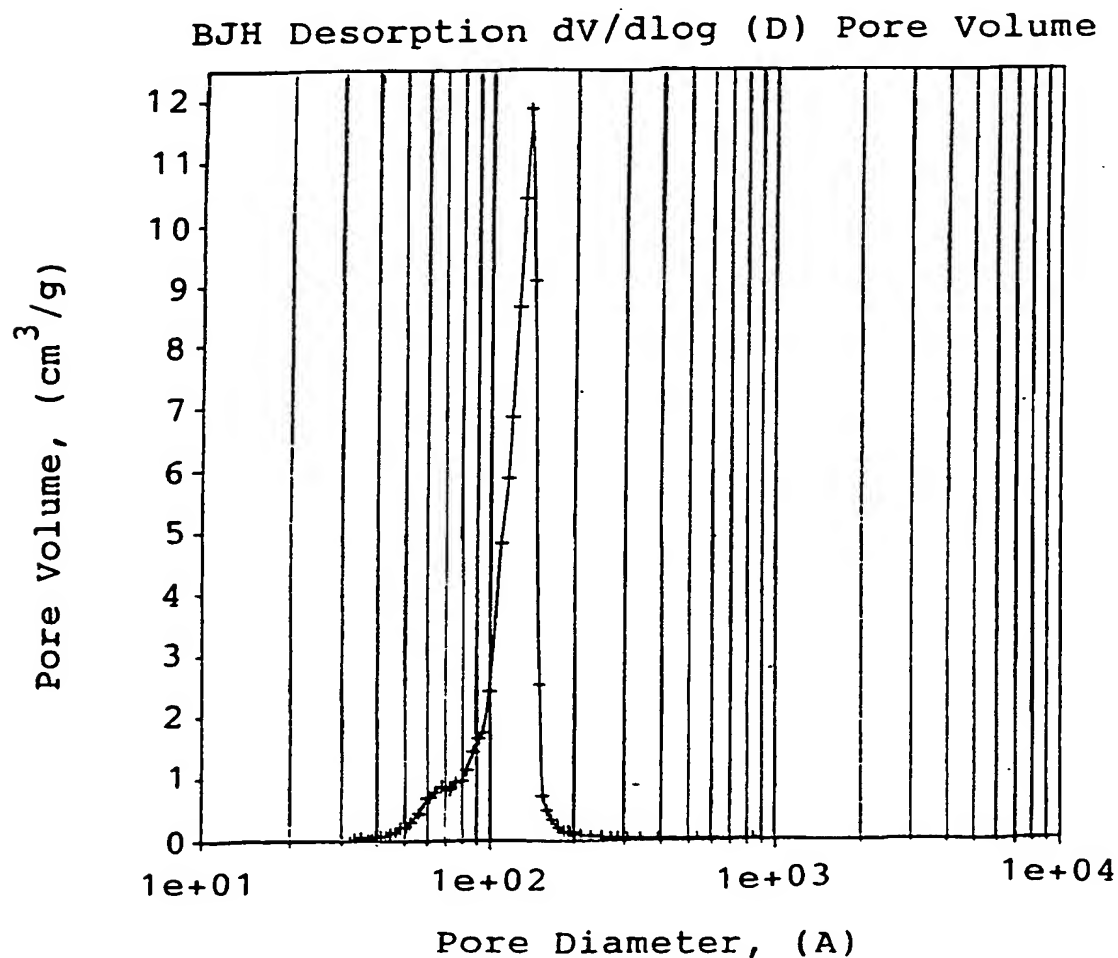
+

7 / 15

FIG. 3B

Figure 3B: BJH Desorption $dV/d\log D$ curve for the sample prepared according to example 3.

Started: 03/15/99 15:50:42
Completed: 03/17/99 07:17:44
Report Time: 04/05/99 14:41:11
Sample Weight: 0.2140 g³
Warm Freespace: 18.3702 cm³
Equil. Interval: 10 secs
Analysis Adsorptive: N2
Analysis Bath: 77.30 K
Thermal Correction: No
Smoothed Pressures: No
Cold Freespace: 56.4418 cm³
Low Pressure Dose: 5.00 cm³ /g STP



+

8 / 15

FIG. 3C

Figure 3C: Horvath-Kawazoe differential pore volume plot with slit pore geometry for the sample prepared according to example 3.

Started: 03/15/99 15:50:42
Completed: 03/17/99 07:17:44
Report Time: 07/14/99 13:57:02
Sample Weight: 0.2140 g
Warm Freespace: 18.3702 cm³
Equil. Interval: 10 secs
Analysis Adsorptive: N2
Analysis Bath: 77.30 K
Thermal Correction: No
Smoothed Pressures: No
Cold Freespace: 56.4418 cm³
Low Pressure Dose: 5.00 cm³ /g STP

Horvath-Kawazoe Differential Pore Volume Plot
Slit Pore Geometry (original HK)

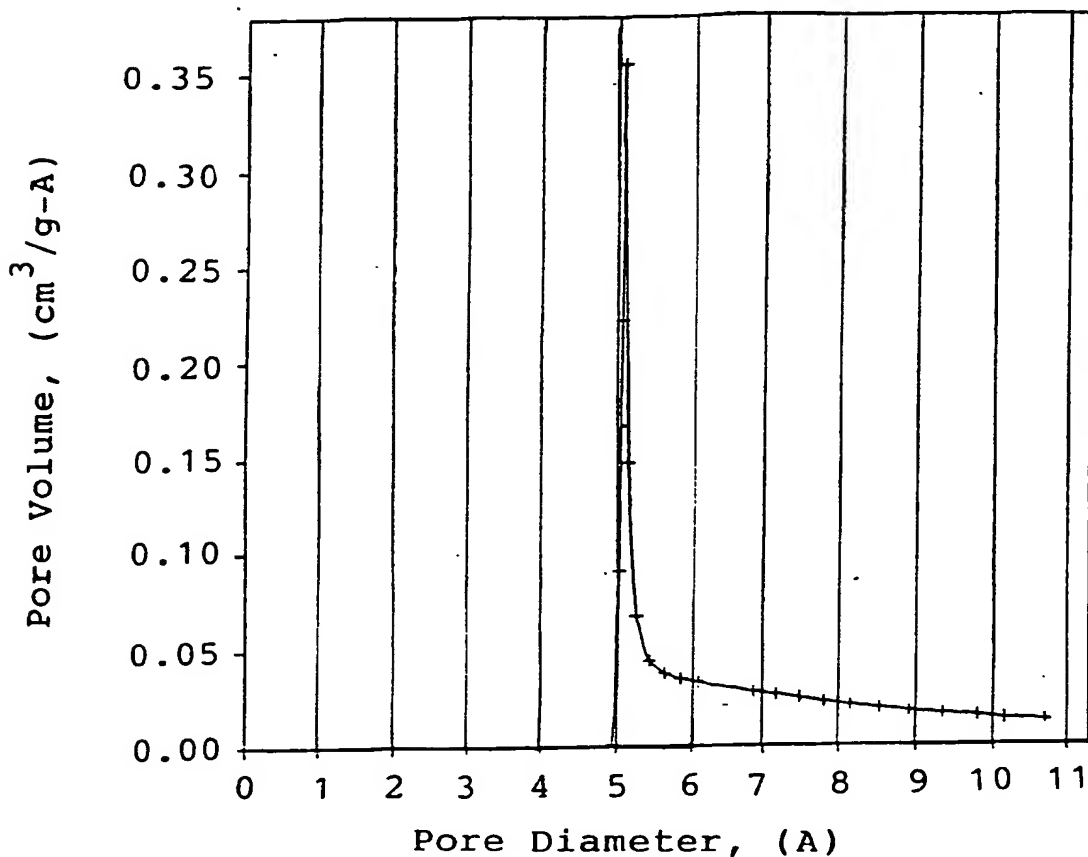


FIG. 5A

Example 5

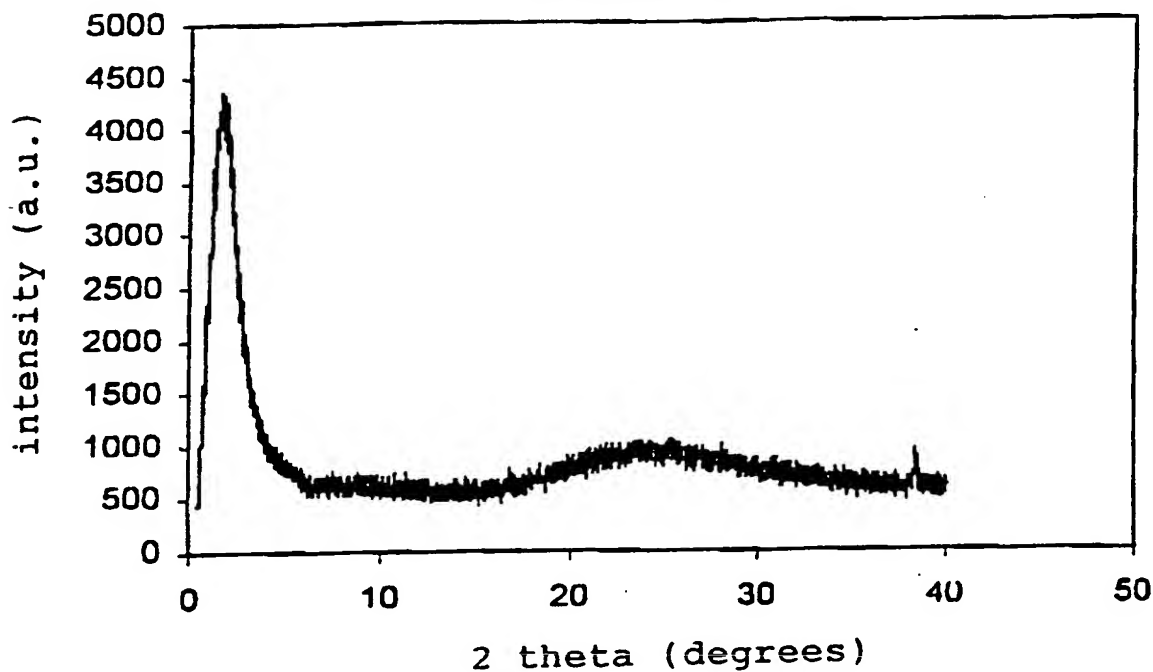
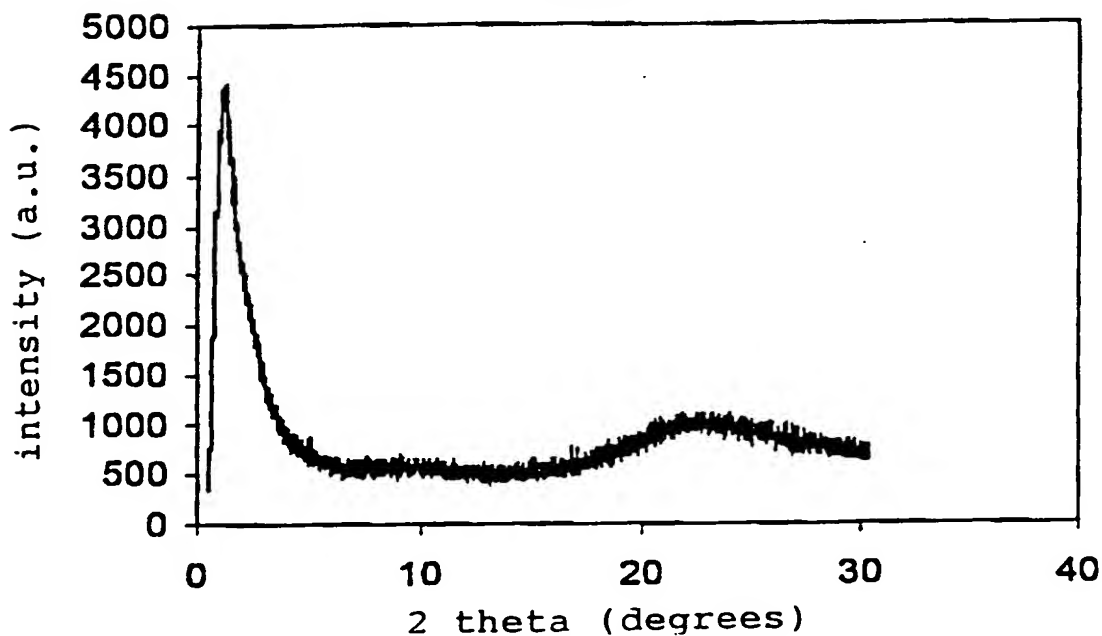


FIG. 6

Example 6



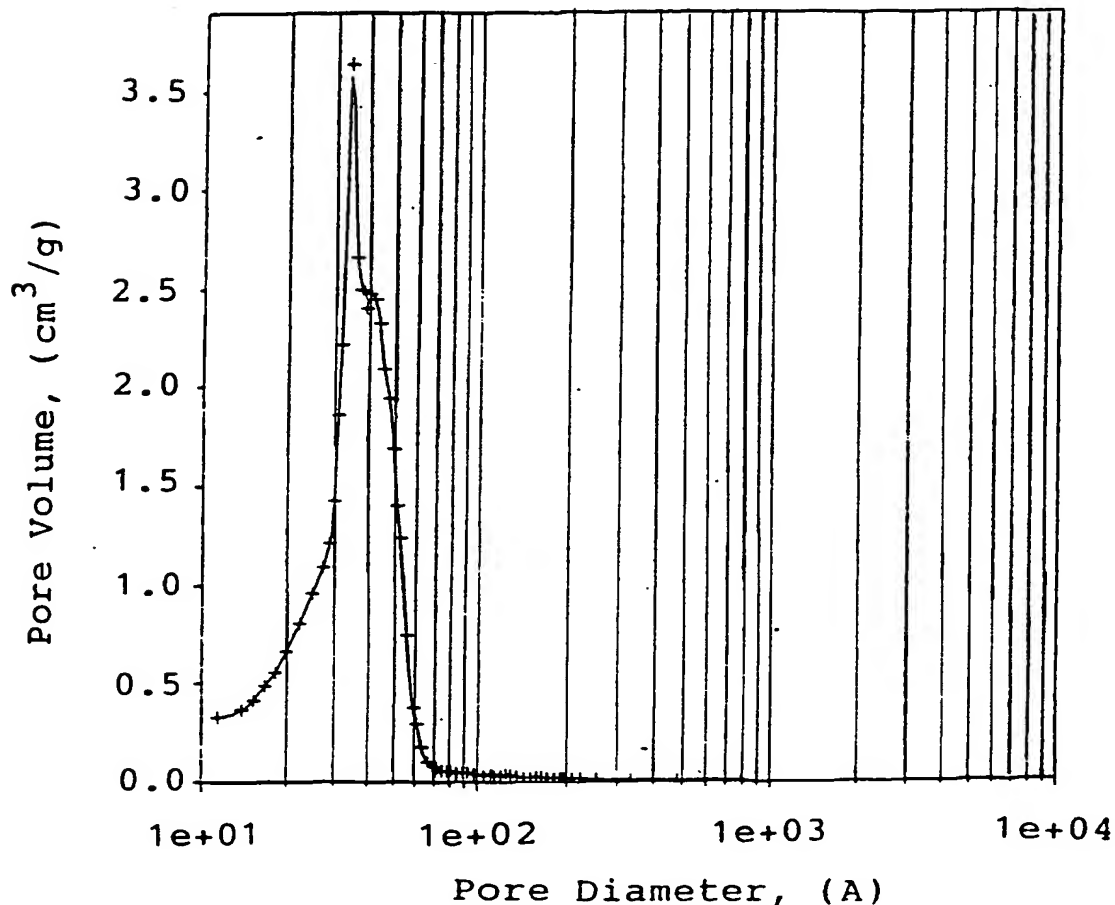
10/15

FIG. 5B

Figure 5B: BJH Desorption $dV/d\log D$ curve for the sample prepared according to example 5.

Started: 07/26/99 11:03:10
Completed: 07/27/99 23:22:25
Report Time: 07/29/99 16:21:36
Sample Weight: 0.1220 g
Warm Freespace: 18.1883 cm³
Equil. Interval: 10 secs
Analysis Adsorptive: N₂
Analysis Bath: 77.30 K
Thermal Correction: No
Smoothed Pressures: No
Cold Freespace: 55.4195 cm³
Low Pressure Dose: 5.00 cm³/g STP

BJH Desorption $dV/d\log (D)$ Pore Volume



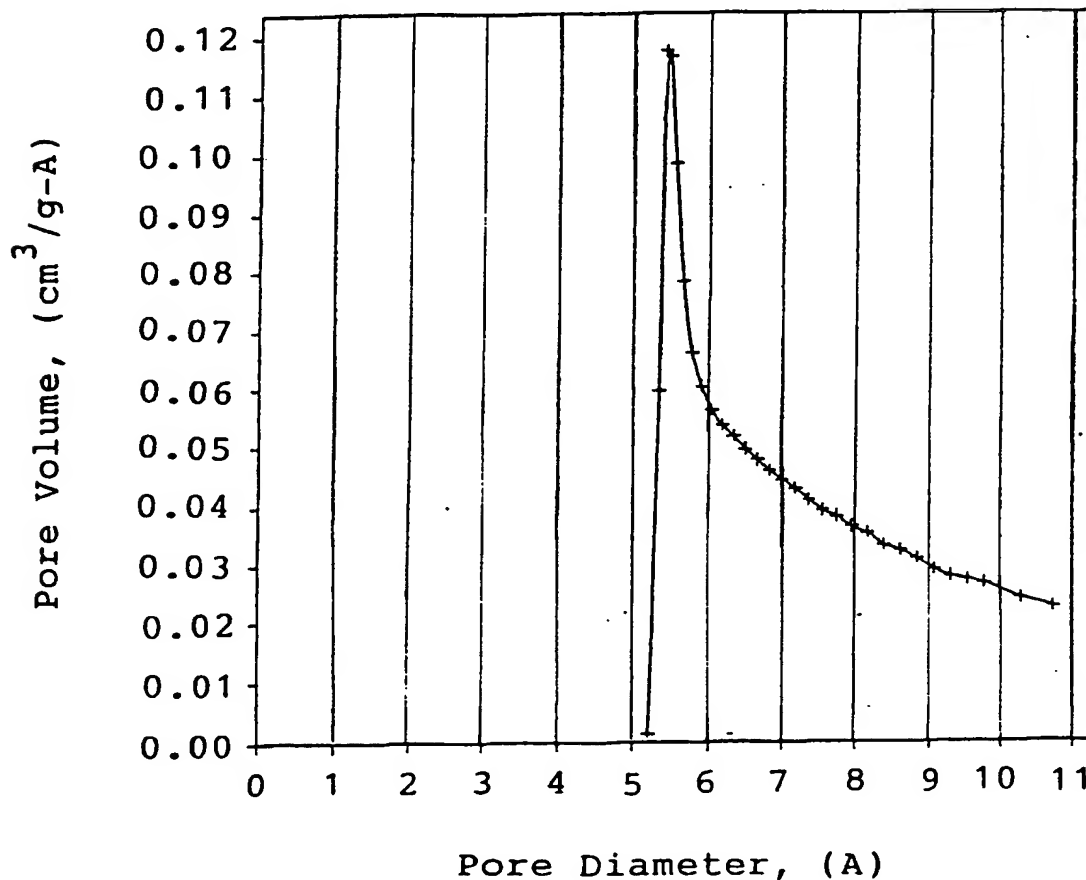
11 / 15

FIG. 5C

Figure 5C: Horvath-Kawazoe differential pore volume plot with slit pore geometry for the sample prepared according to example 5.

Started: 07/26/99 11:03:10
Completed: 07/27/99 23:22:25
Report Time: 07/29/99 16:21:36
Sample Weight: 0.1220 g
Warm Freespace: 18.1883 cm³
Equil. Interval: 10 secs
Analysis Adsorptive: N₂
Analysis Bath: 77.30 K
Thermal Correction: No
Smoothed Pressures: No
Cold Freespace: 55.4195 cm³
Low Pressure Dose: 5.00 cm³ /g STP

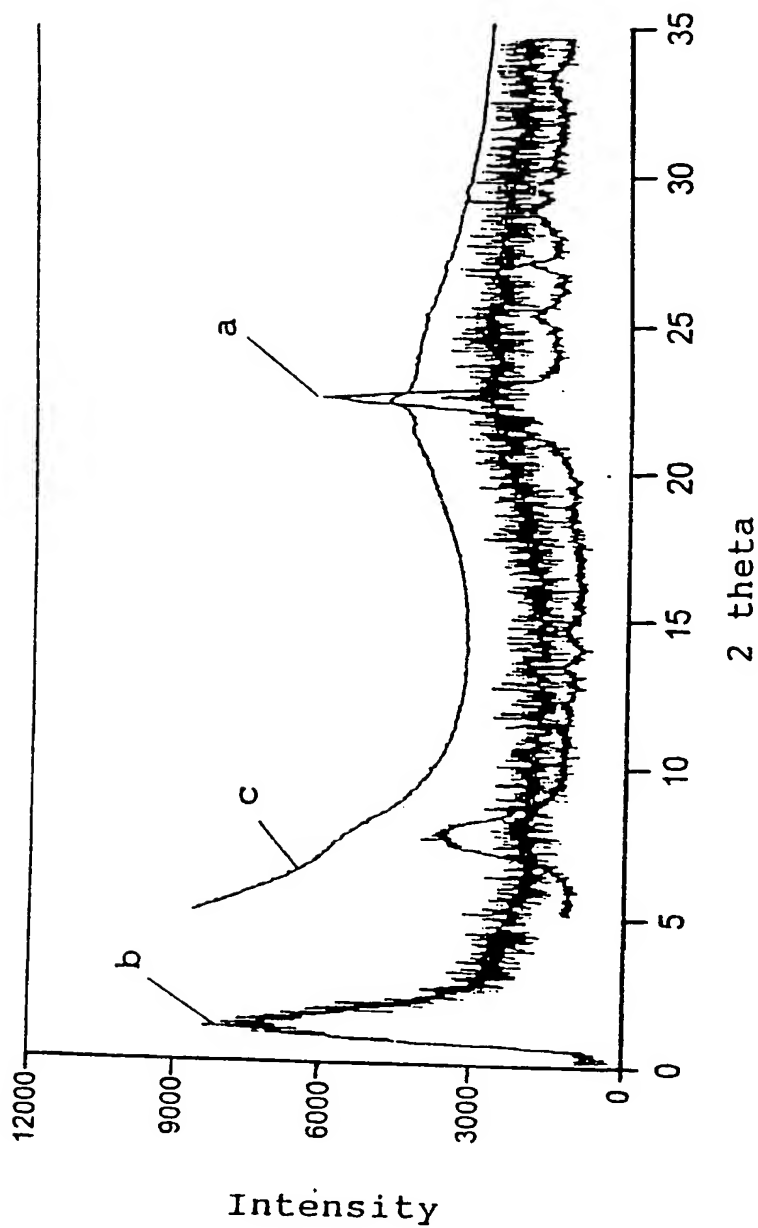
Horvath-Kawazoe Differential Pore Volume Plot
Slit Pore Geometry (original HK)



+

12 / 15

FIG. 7

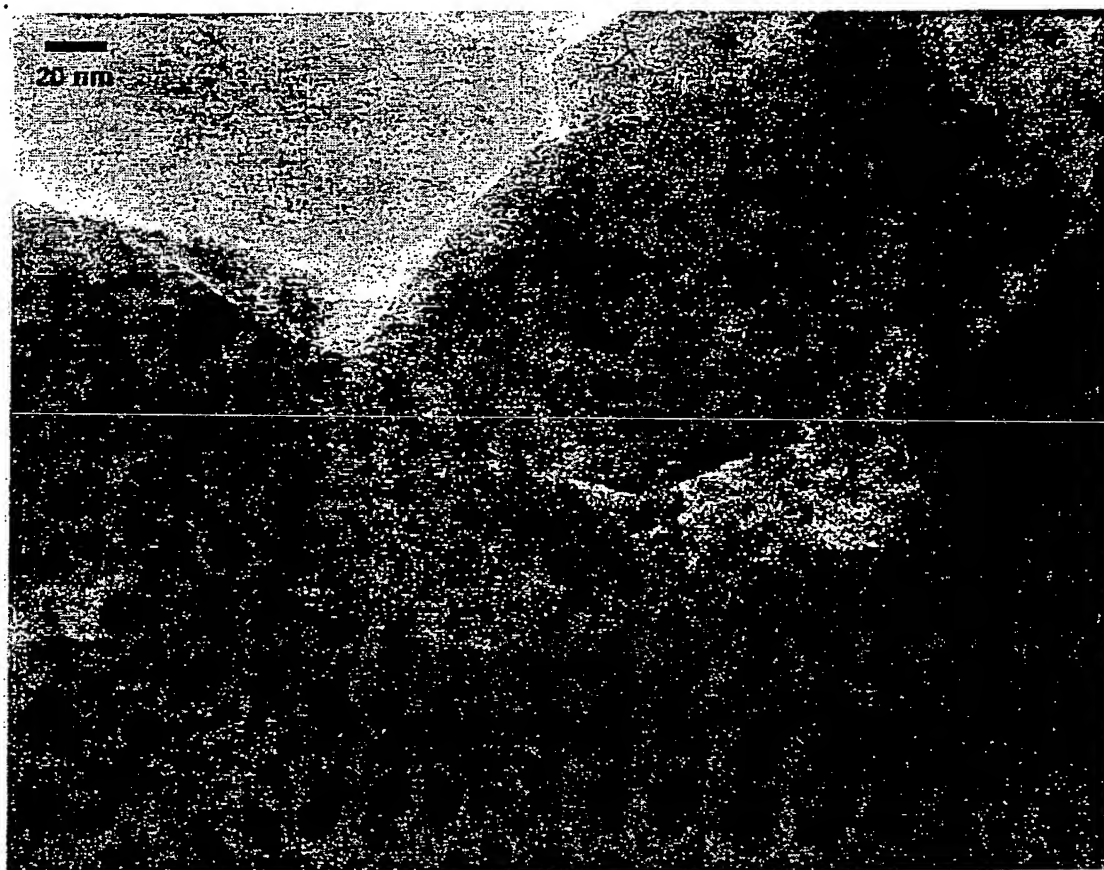


XRD patterns of (a) pure beta zeolite, (b) beta-TUD-1 and (c) high-resolution measurement of beta-TUD-1.

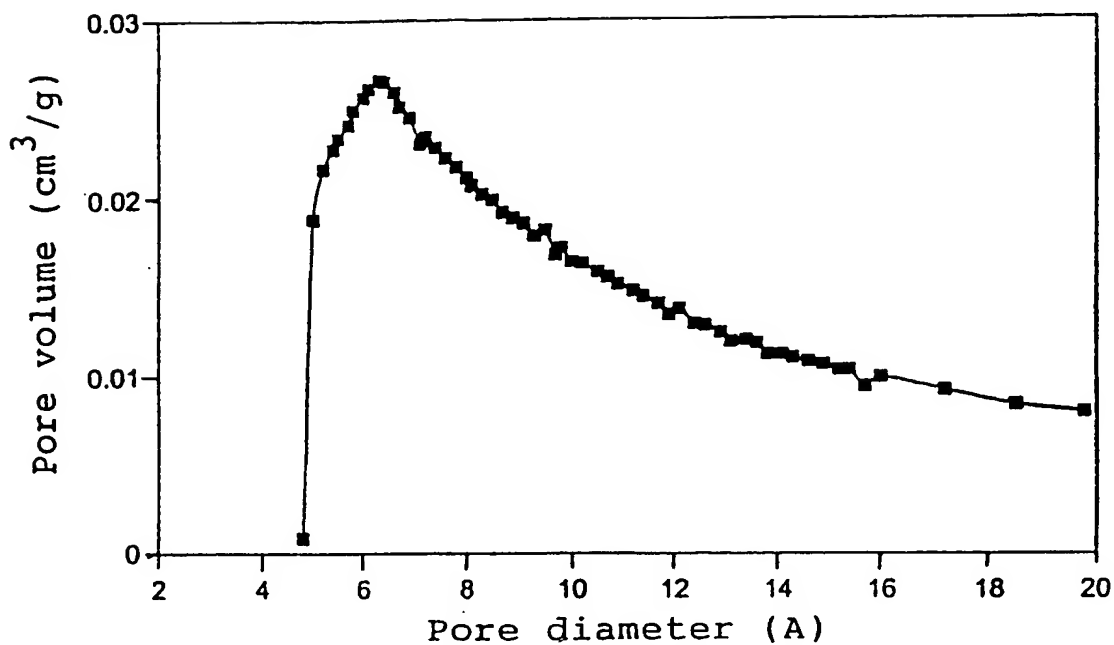
+

13 / 15

FIG. 8

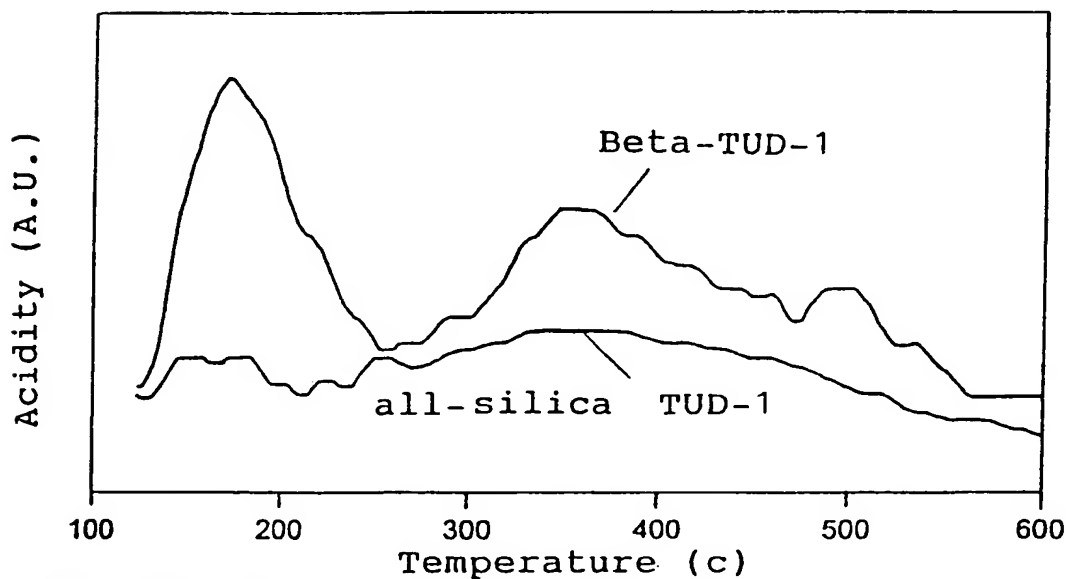


Transmission Electron Microscopy image of
the material made in Example 8.

14 / 15
FIG. 9

Micropore size distribution of beta-TUD-1.

FIG. 10

NH₃-TPD of beta-TUD-1 and all-silica mesoporous product as produced in Example 2 ("TUD-1").

+

15/15

FIG. 11



Transmission Electron Microscope photograph of
the material produced in Example 3.